AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for generating service's state data and extensible meta-data information with a service oriented state data generator (SSDG) comprising:

establishing a platform independent, extensible meta-data model for said meta-data information;

obtaining state data schema based on a service state data description;

defining an extensible set of meta-data attributes and templates corresponding to said meta data based on requirements of a service;

utilizing said meta-data model and based on said state data schema and said attributes, generating ~~service state data~~ state data of a service based on said service's state data schema; and

said ~~service state data~~ state data of a service including at least one of: state data (temporal or fixed), state data logical mapping, state data physical mapping, meta-data associated with said service's state data and meta-data model correlations associated with said meta-data.

2. (currently amended) The method of Claim 1 further including generating code to enable said service to support a query on said ~~service state data~~ state data of a service and notification on ~~service state data~~ change of state data of a service.

3. (currently amended) The method of Claim 1 further including generating code to enable said service to provide access mechanisms on said ~~service state data~~ state data of a service.

4. (currently amended) The method of Claim 1 further including creating ~~service state data~~ state data of a service from any data definition schema; wherein said

4

data definition schema include at least one of XML Schema, DTD, RELAX NG custom schema definition languages, derivatives of said schema.

5. (currently amended) The method of Claim 1 wherein said a meta-data modeling provides flexibility in generating said ~~service state data~~ state data of a service by providing versioning, compatibility, and a flexible design process and a standard code generation; and

wherein said meta-data modeling in indicative of schema or meta-data for said service state meta-data.

6. (original) The method of Claim 1 wherein said meta-data model is supported with a drag and drop window system wherein a service developer can annotate said state data schema by drag and drop meta-data information.

7. (original) The method of Claim 1 wherein said meta-data models employ a common language including XML or a derivative thereof for describing said meta-data that is extensible to support additional meta-data features.

8. (currently amended) The method of Claim 1 further including enabling a user to define a mapping between meta-data and ~~service state data~~ state data of a service; said data mapping including at least one of a logical abstraction of said ~~service state data~~ state data of a service where this abstraction holds references to real service instance data, and a direct mapping can be a direct mapping to ~~service state data~~ state data of a service.

9. (currently amended) The method of Claim 1 wherein said meta-data attributes and templates facilitate mapping meta-data to said ~~service state data~~ state data of a service, wherein said attributes are meta-data information on at least one of service state constraints, service state qualifiers, service state data access mechanisms.

10.   (currently amended) The method of Claim 1 wherein said defining meta-data attributes includes extensible service state data qualifiers and:

defining notification qualifiers on said ~~service state data~~ state data of a service to indicate whether a change in said service state data promulgates notification;

defining security requirements on said service state data discovery and notification; and

defining transaction qualifiers of said ~~service state data~~ state data of a service.

11. (currently amended)   The method of Claim 1 wherein said defining meta-data attributes includes defining extensible service state data constraints and defining one or more relationships among said ~~service state data~~ state data of a service, wherein said extensible service state data constraints include at least one of; constraints on mutability of said ~~service state data~~ state data of a service; constraints on validity of said ~~service state data~~ state data of a service including life time constraints; and constraints cardinality of said ~~service state data~~ state data of a service.

12.   (currently amended) The method of Claim 1 wherein said defining meta-data attributes includes defining extensible service state data access mechanisms, wherein said extensible service state data access mechanisms include: a flexible callback mechanism on said ~~service state data~~ state data of a service and expression through said meta-data; a data push mechanism for service state data update and expression through said meta-data; other extensible data access mechanisms on said ~~service state data~~ state data of a service, including direct access to said ~~service state data~~ state data of a service held in a database or direct access to state data through SNMP,CIM, Web services; and extensible custom template mechanisms for data access based on requirements of a service.

13. (original) The method of Claim 1 further including generating pluggable extension mechanisms for meta-data attributes.

14. (currently amended) The method of Claim 1 further including obtaining service developer feedback on meta-data generation for said ~~service state data~~ state data of a service; based on said meta-data attributes.

15. (original) The method of Claim 14 wherein said service developer feedback is provided through custom dialog boxes; wherein said service developer can pass parameters to said service oriented state data generator; and wherein said service developer can provide templates to guide said generating and said mapping.

16. (currently amended) The method of Claim 1 further including a service developer creating a relationship between selected ~~service state data~~ state data of a service.

17. (original) The method of Claim 1 further including validating software code based on said generating to ensure that said code is compatible with said meta-data model and said state data schema.

18. (original) The method of Claim 1 wherein said generator is configured as a pluggable framework to facilitate use as an eclipse plug in or included with other user interfaces frameworks.

19. (currently amended) A system for generating service state data and extensible meta-data information with a service oriented state data generator (SSDG) comprising:

a means for establishing a platform independent, extensible meta-data model for said meta-data information;

a means for obtaining state data schema based on a service state data description;

a means for defining an extensible set of meta-data attributes and templates corresponding to said meta data based on requirements of a service;

a means for utilizing said meta-data model and based on said state data schema and said attributes, generating ~~service state data~~ state data of a service based on said service state data schema; and

said ~~service state data~~ state data of a service including at least one of: state data, state data logical mapping, state data physical mapping, meta-data associated with said ~~service state data~~ state data of a service and meta-data model correlations associated with said meta-data.

20.   (currently amended) A storage medium encoded with a machine-readable computer program code, said code including instructions for causing a computer to implement a method for generating service state data and extensible meta-data information with a service oriented state data generator (SSDG), the method comprising:

establishing a platform independent, extensible meta-data model for said meta-data information;

obtaining state data schema based on a service state data description;

defining an extensible set of meta-data attributes and templates corresponding to said meta data based on requirements of a service;

utilizing said meta-data model and based on said state data schema and said attributes, generating ~~service state data~~ state data of a service based on said service state data schema; and

said ~~service state data~~ state data of a service including at least one of: state data, state data logical mapping, state data physical mapping, meta-data associated with said ~~service state data~~ state data of a service and meta-data model correlations associated with said meta-data.

8